

New REMAP Projects for FY 02

Region 2 – Darvene Adams Regional Contact, (732) 321-6700
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Trend Assessment in the NY/NJ Harbor System

Project Description

To provide federal, state and local managers with a scientifically valid basis for prioritizing problems and determining progress of ongoing management actions. The data collected will be used to develop a trend assessment for the NY/NJ Harbor system. A baseline investigation in 1993/4 and a five year revisit in 1998 provided objective milestones to determine how conditions have changed over time. A 10 year revisit is proposed for FY2003.

Objective 1: To evaluate statistically the current conditions of the Harbor with respect to sediment quality, water quality and biological condition. The results will also provide baselines from which trends can be determined as a way to mark improvements in the Harbor.

Objective 2: To determine statistically whether the conditions in the Harbor have changed in the last 10 years.

Region 3 - Tom Pheiffer ORD/PO, Region III (410) 305-2740

Probabilistic Assessment of Benthic Macro Invertebrates, Hydrophobic Dissolved Trace Organic Contaminants, Nutrients, Selected Water Quality and Sediment Parameters in Nontidal Streams and Rivers of Virginia

Project Description

Water quality monitoring and reporting directs the Virginia Department of Environmental Quality to expand the percentage of river and stream miles monitored so as ultimately to be representative of all river and stream miles in the state according to a developed plan and schedule. This project will enhance current monitoring by addition of a suite of target analytes to include hydrophobic dissolved trace organic contaminants using Semi Permeable Membrane Devices (SPMDs) to further characterize water quality at the small watershed level.

Objective 1: Determine what proportion of Virginia streams are supporting threatened, partially supporting or not supporting fishable, swimmable and aquatic life uses.

Objective 2: For non-use streams factors that contribute to their degradation will be determined over time.

Ronald Landy Regional Contact, (410) 305-2757
Rich Sumner ORD/ PO, WED/NHEERL (541) 754-4444

Validation and Sensitivity Analysis for a Rapid Wetland Assessment using Comprehensive Wetland Assessment Data

Project Description

The State of Delaware is currently developing a program to begin assessing the condition of wetlands throughout the state. To meet the goals of improved resource management and the requirement of the settlement agreement, we have been developing tools and testing assessment design and implementation methods in the Nanticoke River watershed as part of projects funded by REMAP and EPA Wetland Program Development Grants. The proposed project would continue these efforts by providing advanced statistical analysis to validate and calibrate a rapid assessment technique with a comprehensive wetland assessment technique. The product produced with this project is a statistically sound and validated wetland assessment method that the State can use to begin a statewide wetland assessment program.

Objective 1: Compare the results of the rapid assessment (Level 2) with the comprehensive assessment (Level 3) results to determine if they are the same.

Objective 2: Determine the sensitivity of the rapid assessment methods (Level 2) for determining condition of wetlands.

Objective 3: Determine the confidence level of using a rapid assessment (Level 2) versus a comprehensive assessment (Level 3) to report on wetland condition.

Region 6- Charlie Howell Regional Contact (214) 665-8354
Michael Lewis ORD/PO, GED/NHEERL (850) 934-9382

Biological Integrity in Streams and Rivers of Louisiana and Development of Appropriate Water Quality Standards

Project Description

The Louisiana Department of Environmental Quality (LDEQ) has adopted narrative biological criteria and characterized aquatic communities inhabiting wadeable reference streams in non-tidal regions of the state. They have developed multi metric indices for fish and macroinvertebrates for wadeable streams for some ecoregions (Dewalt 1995). LDEQ has also evaluated a waterbody classification system, based on channel geomorphology and hydrology characteristics, that has the potential to refine their ecoregion based classification system (Smythe-Genovese 2001).

The proposed study will focus on the application and refinement of the existing indices and stream classification system with emphasis on the relationship between selected water quality variables and biological integrity. The study will facilitate the refinement of water quality standards use designations and supporting criteria, and advance LDEQ's ability to assess biological integrity, addressing two primary recommendations made by the National Academy of Sciences (NAS 2001).

Objective 1: Identify the most important factors that must be integrated into a waterbody-classification system and identify the number of classes that are needed to minimize natural variability in measurable aquatic community attributes that represent the composition, diversity, and function of communities inhabiting undisturbed or least disturbed streams and rivers within the study area.

Objective 2: Estimate the percentage of streams and rivers within the study area that support a level of biological integrity comparable to appropriate reference waters, as described in the Louisiana water quality standards.

Objective 3: Characterize the typical concentrations and range of variability, during times when waterbodies are unaffected by runoff, of water quality constituents and dissolved oxygen minima observed in least disturbed streams and rivers supporting biological integrity. Identify the concentrations of water quality variables that are associated with a loss of biological integrity in waters affected by land use.

Region 7- Lyle Cowles Regional Contact, (913) 551-7081
Rich Sumner ORD/PO, WED/NHEERL (541) 754-4444

Estimating the Condition of Iowa's Permanent and Semi-permanent Wetlands

Project Description

This proposal seeks to provide the first in a series of coordinated strategic steps toward building a systematic and effective wetland-monitoring and assessment program. We intend to link this project to several other projects (some existing, some to be proposed) which, when taken in their entirety, will be designed to provide a scalable (to the ecoregion and state levels) and holistic (both biological and chemical) monitoring and assessment program for all Iowa's wetlands. The development of a wetland monitoring methodology within this project will then be used by the Iowa Department of Natural Resources to implement wetland monitoring

Objective 1: a periodic assessment (status and trends) of the condition and stressors of Iowa's wetlands

Objective 2: an assessment of the effectiveness of wetlands toward meeting nutrient management goals

Objective 3: the setting of appropriate water quality and biological standards for wetlands protection as part of the state's ambient water quality monitoring program.